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ABSTRACT

Fiedler's Contingency Model postulates that the effectiveness of leaders results from a relationship between leadership style and situational favorability. Leadership style is measured with Fiedler's Least Preferred Coworker Scale, which assesses whether the person rating the coworker is task-oriented or oriented towards interpersonal relations. Situational favorability is a measure of the degree to which the situation of the work group affects the leader's ability to influence group members. Situational factors include relations between group leaders and members, structuredness of tasks, and the extent of the leader's power. Fiedler's research indicated that task-oriented leaders achieved best results in either very favorable or very unfavorable situations, while relations-oriented leaders were most successful in less extreme situations. Several tests of Fiedler's theories have provided some degree of support and have inspired revisions and refinements. This paper reports on an attempt to determine whether task-oriented and human relations-oriented classroom teachers exhibit different classroom behavior, for purposes of validating Fiedler's assumptions concerning motivation. Fourteen faculty members at an eastern university were observed in teaching situations by three trained observers. The data gathered led to mixed results, indicating a need for further study, perhaps of a longitudinal nature. (Author/PGD)

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The Contingency Model of Leadership Effectiveness: Motivational Implications of the Teacher's Role as Leader in the Classroom

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The Contingency Model of Leadership Effectiveness: Motivational Implications of the Teacher's Role as Leader in the Classroom

For more than a decade a considerable amount of research has been conducted concerning Fiedler's Contingency Model (Fiedler, 1978). This model postulates that leadership effectiveness is a curvilinear relationship between leadership style or motivational structure (Fiedler, 1978), as measured by the Least Preferred Co-worker Scale, and situational favorability. The Least Preferred Co-worker Scale (LPC) is a sixteen to twenty item bi-polar adjective checklist that asks the rater to describe a co-worker with whom he/she has had the most difficulty completing some task.

A rater who associates poor task performance with the personality of his/her least preferred co-worker, rates that individual poorly and thus receives a low LPC score. Conversely, a rater who disassociates the poor performance from the personality of his/her least preferred co-worker rates this individual more favorably and thus receives a high LPC score. This rating of the esteem of the least preferred co-worker is interpreted by Chemers and Skrzypek (1972) to reflect "a relative motivation towards task versus interpersonal success in group situations." Leaders who rate their least preferred co-worker low are considered to be task-oriented, while leaders who rate this person high are considered to be relation-oriented.

Situation favorability is defined by Fiedler (1967) as the degree to which the group situation effects the ability of the leader to influence the group members. Further, it is operationalized by Fiedler on the basis of three dimensions. These are, in order of importance, leader-member-relations, task structure and position power. In

Fiedler's original model each of these dimensions is dichotomized, and a hierarchy is created going from the most favorable situation to the least favorable situation. A better understanding of this relationship can be obtained by examining Table 1. In this table Cell 1 represents the most highly favorable situation while Cell 8 represents the least favorable.

Insert Table 1 about here

The correlations in the above table represent the median correlation obtained by Fiedler (1964) upon examining a large number of leadership studies having the particular situations most characteristic of the given cell number. Thus, it can be seen that under very favorable or very unfavorable situations low LPC (task-oriented) leaders (positive correlation between style or motivation and effectiveness) are more effective than high LPC (relation-oriented) leaders (negative correlations between style or motivation and effectiveness). However, under moderately favorable situations high LPC (relation-oriented) leaders are more effective than low LPC (task-oriented) leaders. Thus, the particular motivational style of the leader is related, in a curvilinear fashion, to leadership effectiveness resulting in what many describe as a U-shaped function.

The Contingency Model was investigated by Anderson (1966); Anderson and Fiedler (1964); Chemers and Skrzypek (1972); Fiedler (1966); Graen, Alvarez, Orris, and Martella (1970); Hardy (1971); Hardy, Sack, and Harpine (1973); Hardy (1975); Hardy and Bohren

(1975); Hill (1969); Hunt (1967); O'Brien, Fiedler, and Hewett (1971); Reilly (1969); and Shaw and Blum (1966). Reilly and Graen et al. were not able to support any parts of the model. It should be pointed out that the study by Graen et al. was strongly critized by Fiedler (1971a), who argued that the investigators had improperly manipulated situation favorability. The studies by Anderson and by Shaw and Blum offered weak support for the model. The research by Anderson and Fielder and by Hardy et al. (1973) gave moderate support for the model. The rest strongly supported the model.

Several of the above studies were carried out in educational settings and thus might be considered more relevant to current issues within education. A brief discussion of some of these studies follows. Hardy (1971) investigated the effectiveness of high and low LPC leaders with strong and weak power on structured and unstructured group tasks when the leader member relations were good. This particular study tested the first four cells of the Contingency Model, and was carried out on 56 undergraduate classroom groups. Each group consisted of four members including the leader. Each group worked on a structured and an unstructured task which were similar in nature to assignments typically completed in that class. For all intents and purposes the assignments were seen as regular class assignments. The results of this study partially supported the model. Cells 1, 3 and 4 were supported while Cell 2 was not supported. Thus, low LPC leaders were more effective than high LPC leaders when the power was strong regardless of the type of task. However, high LPC

leaders were more effective when their power was weak and the task was unstructured.

In a relatively similar study, Hardy, Sack and Harpine (1973) investigated the effectiveness of high and low LPC led groups. This study was conducted using ninth graders as subjects and investigated only the weak power cells of the Contingency Model. Specifically, Cells 2, 4, 6 and 8 were tested. Groups were preassigned on the basis of LPC and sociometric data. The results of this study supported Cells 4, 6 and 8, but did not support Cell 2. Thus, when position power was weak, high LPC leaders were more effective on unstructured tasks when leader-member-relations were good and on structured tasks when leader-member-relations were poor, while low LPC leaders were more effective on unstructured tasks when leader-member-relations were poor.

To determine if the model was applicable to elementary school settings, Hardy (1975) tested the model using fourth grade students from eleven classrooms in four different elementary schools. In this particular study only the four cells with poor leader-member-relations were investigated. The data were consistent with the model with the strongest support for Cells 5 and 6. Moderate support was obtained for Cell 8. In this study high LPC led groups were more effective in Cell 7. Data regarding this cell has been mixed. Research by Anderson and Fiedler (1964), Fiedler, Bass and Fiedler (1961) and Fiedler, Meuwese and Oonk (1961), as well as the current study under discussion, indicate that differential results are obtained when

slight changes in task criterions are used within a given study. Perhaps, since Cell 7 is a transitional cell, one would expect less clarity when relatively gross measures of situational favorability are being used. McNamara (1968), in a study concerning the effectiveness of elementary and secondary principals in Canadian schools, found significant relationships between LPC and effectiveness measures. More specifically, he found negative correlations between LPC and effectiveness for newly appointed (less then three years) secondary and established (three years and greater) elementary principals, and positive correlations for newly appointed elementary and established secondary principals. Fiedler (1971b), in discussing McNamara's data, introduced the construct of organizational complexity. The elementary schools in McNamara's study tended to be small and thus should be low in organizational complexity while the secondary schools were very large and should be high in complexity. Fiedler believed that complexity was a relevant variable that might explain why the elementary principals differed from the secondary principals in the previously mentioned correlations.

Fiedler's (1971b) introduction of the organizational complexity construct prompted Hardy and Bohren (1975) to expand the Contingency Model to sixteen cells by the addition of complexity as an important determinant of situation favorability. Table 2 presents this revised model.

Insert Table 2. about here

The revised model alters the predictions one would make based on

the original model. In Fiedler's model, using cell codes from Table 2, Cells 1, 2, 3 and 8 favor low LPC leaders, while Cells 4, 5 and 6 favor high LPC leaders. In the revised model the extreme cells (1, 2, 3, 14, 15 and 16) favor low LPC leaders, while those around the center of the model (6-11) favor high LPC leaders. Cells 4, 5, 12 and 13 are boarderline in nature and hard to predict. Hardy and Bohren's (1975) study was specifically designed to investigate the applicability of parts of the revised model using a complex organizational setting. More specifically, the study investigated the effectiveness of 21 first year and 35 experienced (five years or more) university teachers using student ratings to measure effectiveness. Several assumptions were made in this study. First, it was asumed that a large state university was a complex organization. Second, starting teachers have poorer leader-member-relations than experienced teachers. This is based on the belief that if a person remains in an organization over time then the relations between that person and those around him/her will improve. Third, starting teachers are in a more unstructured situation than experienced teachers. This is based on the belief that over time an experienced teacher structures his/her work environment. Based on the above assumptions, starting teachers would most closely be alligned with Cell 15, while experienced teachers would be more closely alligned to Cell 9. If the above is valid, it would be expected that starting teachers who were low LPC would be more effective than high LPC teachers. Further, it would be expected that for experienced teachers high LPC teachers would be more effective

than low. The predicted interaction was significant and the means were in the hypothesized direction. However, individual comparisons only revealed significant effects for experienced teachers thus only partially supporting the revised model.

Fiedler (1970), when commenting on his original interpretation of high and low LPC styles, indicated that this interpretation approximated reality, but was "grossly oversimplified." At this time he offerred a more complex interpretation of the relationship between LPC and leader behavior. He described the high LPC individual as one who is primarily motivated to seek inter-personal interactions, while low LPC individuals are primarily motivated by explicit competition for material and tangiable rewards in work situations. What is a primary motivation for one individual, however, might be a secondary motivation for another. Thus, the high LPC individual has a secondary motivation which is somewhat compatiable with the primary motivation of the low LPC individual. The reverse would be true for the low LPC individual. In situations where an individual's control and influence are relatively weak or threatened they will tend to concentrate their efforts to accomplish their primary motivational goal at the expense of their secondary motivation. In situations in which their control is great, they will use their energies toward the attainment of secondary goals. Thus, in a situation in which there are excellent leader-member-relations, the high LPC leader will shift to a secondary goal of pleasing those in authority.

Fiedler's discussion of primary and secondary motivation, in

respect to leadership styles, appears to be congruent with the position taken by Blake and Mouton (1964) when they coined the constructs of dominant and backup leadership styles. They indicated that one set of managerial assumptions is not sufficient to understand the entire implications of a given managerial approach. They postulated that a person's backup style is what he/she uses when the dominant style is not effective in achieving the desired results. This approach is similar to that of Fiedler in that one's backup style seems to be consistent with what Fiedler describes as one's primary motivational style. Similarly, Fiedler's secondary motivational style seeems to be consistent with Blake and Mouton's dominant style.

Motivation has been described as the inclination to engage in some form of mental activity or observable behavior (Atkinson and Raynor (1974). An inclination is not itself observable. Therefore, motives are observed from actual observable behavior. Little evidence exists describing the actual behavior of high and low LPC individuals. Thus, the theoretical position taken by Fiedler to describe the actual motivational style of individuals in a leadership role has little validation evidence to support it. It is the purpose of this paper to more closely examine the actual behavior of classroom teachers and compare these to their given motivational style as elaborated by Fiedler. More specifically, it is anticipated that high and low LPC teachers should differ in their actual classroom behavior if the position postulated by Fiedler is valid.

Method

Subjects

Subjects were 14 full time graduate faculty members from the School of Education of a large Eastern university. Fifteen subjects were randomly selected from the entire graduate education faculty. All subjects agreed to participate, however, shortly after the study began one of the subjects decided not to participate.

Procedure

Three advanced graduate students were pretrained as experimental observers in the use of Flander's (1963) Interaction Analysis. This is a ten category system that is used to categorize teacher (direct and indirect) and student talk or influence. Indirect influence is obtained by four observation categories: (1) accepting-feeling, (2) praising or encouraging, (3) accepting ideas, and (4) asking questions. Direct teacher influence is obtained by three observation categories: (5) lecturing, (6) giving directions, and (7) criticising or justifying authority. Student influence is obtained by two categories: (8) responding to teacher and (9) initiating talk. Category 10 is a 'catch all' category, and it refers to silence or confusion. Using a Scott's reliability coeficient (Flanders, 1960), observers were pretrained to an inter observer reliability of 0.85 or greater.

Permission to collect data was requested from each of the randomly selected subjects prior to their class session. They were

informed as to the nature of the data to be collected, and that data was to be collected on three separate occassions. Class sessions being observed were randomly selected from all sessions during the second half of the semester except for the last two classes. Since the last class was the final exam and the preceding class was believed to be frequently used as a review period, they were not thought to be typical and thus were not used.

Observations were counterbalance such that each expermimental observer collected data on each subject. Assignment of observers to particular class sessions were done randomly. During each class session interaction analysis data were collected for a five minute period of time. Data were collected on one occassion near the beginning of the class period (six minutes into the class), on a second occassion near the middle of the class period, and on a third occassion near the end of the class period. After all observational data had been collected, subjects were contacted for a follow -up conference. At this time the Least Preferred Co-worker (LPC) Scale was administered, and the nature of the study was briefly explained.

Analysis of Data

A median split was performed on the LPC scores, thus dividing the subjects into high and low LPC groups. The three interaction analyses for each subject were combined to yield a single analysis. Data were organized into a 10 X 10 matrix of sequence pairs as discussed in Flander's (1963). Within this matrix Flanders identified certain areas which yield particularly useful information. The matrix and the

areas within it can best be understood by examining Figure 1. Area 'A' represents the total indirect influence, Area 'B' the total direct influence, Area 'C' the total student talk and Area 'D' the total silence and confusion (sum of column 10). Area 'E' represents sustained indirect influence, Area 'F' sustained direct influence (direction giving and justifying authority), Area 'G' indirect teacher response to student talk, Area 'H' direct teacher talk in response to student talk, Area 'I' student talk in response to teacher talk and Area 'J' sustained student talk.

Insert Figure 1 about here

For each cell of the matrix and for all totals of a particular category percentages of occurrence were computed. Scores for each of the areas were obtained by summing the percentages of the appropriate cells. Data were analyzed by use of one way analysis of variance with two levels of LPC as the independent variable and the appropriate percentages from the matrix as the dependent variable.

Results

All subjects were given the LPC scale and a median split was performed on the data. The means and standard deviations for the high and low LPC groups were, respectively 82.571, 8.619 and 47.143, 6.149.

Table 3 presents the means and standard deviations for the high and low LPC groups for each of the categories. One way analyses of variance were run with two levels of LPC as the independent variable and percentage of occurrence of each of the categories as the dependent variables. Significant differences were obtained for

Categories 5, F (1, 12) = 7.728, 6, F (1, 12) = 7.967, and 7, F (1, 12) = 5.181. All values were significant at $p < .05$. High LPC subjects used Category 5 more than low LPC subjects, while low LPC subjects used Categories 6 and 7 more than high LPC subjects.

Insert Table 3 about here

Table 4 presents the means and standard deviations for the high and low LPC groups for each of the matrix areas except for 'D' (this is the same as Category 10 found in Table 3). These values represent the sum of the percentages of occurrence of each of the cells that comprise to make the area. One way analyses of variance were run with two levels of LPC as the independent variable and percentages of the matrix areas as the dependent variables. Significant differences were obtained for Areas 'F', F (1, 12) = 5.345, 'G', F (1, 12) = 5.692, and 'I', F (1, 12) = 6.361. All values were significant at $p < .05$. In all three of the above areas, low LPC subjects had higher values than did high LPC subjects.

Insert Table 4. about here

Discussion

In summary, it was found that low LPC teachers used more of Categories 6 and 7 and Areas "F", "G" and "I" while high LPC teachers used more of Category "5". Some of these data seem very consistent with what one would expect to find, however, other aspects of the data are difficult to understand. Categories 6 (giving directions), 7 (justifying authority) and Aera "F" (sustained direct influence) are

characteristic of a very direct style, and consistent with what one would expect of a task motivated teacher. One would expect a teacher who is primarily motivated to complete a task to give more directions and to justify his/her authority, particularly over extended periods of time, more so than a teacher who is primarily concerned with seeking individual interactions and maintaining good group relations. One would not have expected, however, to find a high LPC teacher having more use of Category 5 (lecture) than a low LPC teacher. It would be more likely to find a high LPC teacher using more of Categories 1, 2 and 3 and especially in a sustained manner as would be evidenced by Area "E". Neither group differed on these categories or this area. However, the data for Category 2 (giving reward or praise) was leaning in the opposite direction and approaching significance, $F(1, 12) = 3.951$.

It is interesting to note that low LPC teachers had more use of Area "I" (student talk in response to teacher talk) and Area "G" (indirect teacher talk in response to student talk) than did high LPC teachers. There were little differnces, however, between high and low LPC teachers on the use of Area "J" (sustained student talk). Thus, it appears low LPC teachers involve students in their classes for short responses, and they tend to reinforce those responses with short statements. This is not inconsistent with what one might expect of a task-oriented teacher as these techniques would be characteristic of a teacher trying to complete a task (the lesson) while maintaining control over the situation.

The data does discriminate low LPC teachers from high, however, it was expected that high LPC teachers might have made more use of other categories than what was found. Since the data were collected during the latter half of the semester, leader-member-relations might have been much improved, particularly for the high LPC teacher whose primary motivation is to concentrate on maintaining good group relations. If this were the case, high LPC teachers would be expected to begin concentrating more on their secondary motivation of pleasing authority and accomplishing the task, thus using more lecture techniques. Since the low LPC teacher is not as adept at improving leader-member-relations, these relations might not be as strong as in the high LPC teacher's classroom. Thus, at this stage of the semester the low LPC teacher would still be concentrating on his/her primary motivation of completing the task.

The low LPC teachers in this study had a mean LPC score that was slightly high. A more extreme population might have yielded more pronounced differences. Future research should investigate a more extreme population. In addition, it should concentrate on examining leader-member-relations during the course of the study, and the data should be collected over a longer period of time. Such longitudinal data of a teacher might better help us to understand the relationship between leadership motivation or style and actual behavior.

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Table 1

Contingency Model

Cell #	LMR	Task Structure	Position Power	Correlation
1	Good	Structured	Strong	-.52
2	Good	Structured	Weak	-.58
3	Good	Unstructured	Strong	-.33
4	Good	Unstructured	Weak	+.47
5	Poor	Structured	Strong	+.42
6	Poor	Structured	Weak	*
7	Poor	Unstructured	Strong	+.05
8	Poor	Unstructured	Weak	-.43

* Recent research yields a positive correlation forCell 6.

Table 2

Revised Contingency Model (Hardy and Bohren)

Cell	Complexity	LMR	Task Structure	Position Power
1	low	good	structured	strong
2	low	good	structured	weak
3	low	good	unstructured	strong
4	low	good	unstructured	weak
5	low	poor	structured	strong
6	low	poor	structured	weak
7	low	poor	unstructured	strong
8	low	poor	unstructured	weak
9	high	good	structured	strong
10	high	good	structured	weak
11	high	good	unstructured	strong
12	high	good	unstructured	weak
13	high	poor	structured	strong
14	high	poor	structured	weak
15	high	poor	unstructured	strong
16	high	poor	unstructured	weak

Table 3

Means And Standard Deviations For High And Low LPC Groups For Each Category

		Categories									
LPC		1	2	3	4	5	6	7	8	9	10
Hi	$\bar{X}$	0.0000	1.9000	6.7857	12.5857	43.9286	2.4000	0.1143	14.1429	14.9000	3.2429
	S.D.	0.0000	2.4180	5.3221	4.5087	29.6719	2.5462	0.2035	16.1015	21.1145	4.0902
Lo	$\bar{X}$	0.5429	7.2429	5.3000	15.8000	11.7857	8.0286	1.8857	14.8429	28.2857	6.2714
	S.D.	1.1697	6.6880	2.8000	6.2610	7.4430	4.6209	2.0489	8.5533	21.7526	3.8827

Table 4

Means and Standard Deviations For High And Low LPC Groups For Each Matrix Area

		Matrix Areas								
LPC		A	B	C	E	F	G	H	I	J
Hi	$\bar{X}$	21.2571	46.4571	29.0429	4.1286	1.5857	6.5143	1.8714	8.5429	20.2000
	S.D.	9.1711	29.1515	20.7943	4.2042	1.9248	3.5951	2.2882	5.1290	19.1999
Lo	$\bar{X}$	28.8714	21.7000	43.1143	4.1571	5.4143	11.2286	3.8143	15.2429	26.3857
	S.D.	10.7995	11.4564	18.6776	4.8325	3.9359	3.7955	2.5149	4.8058	22.1090

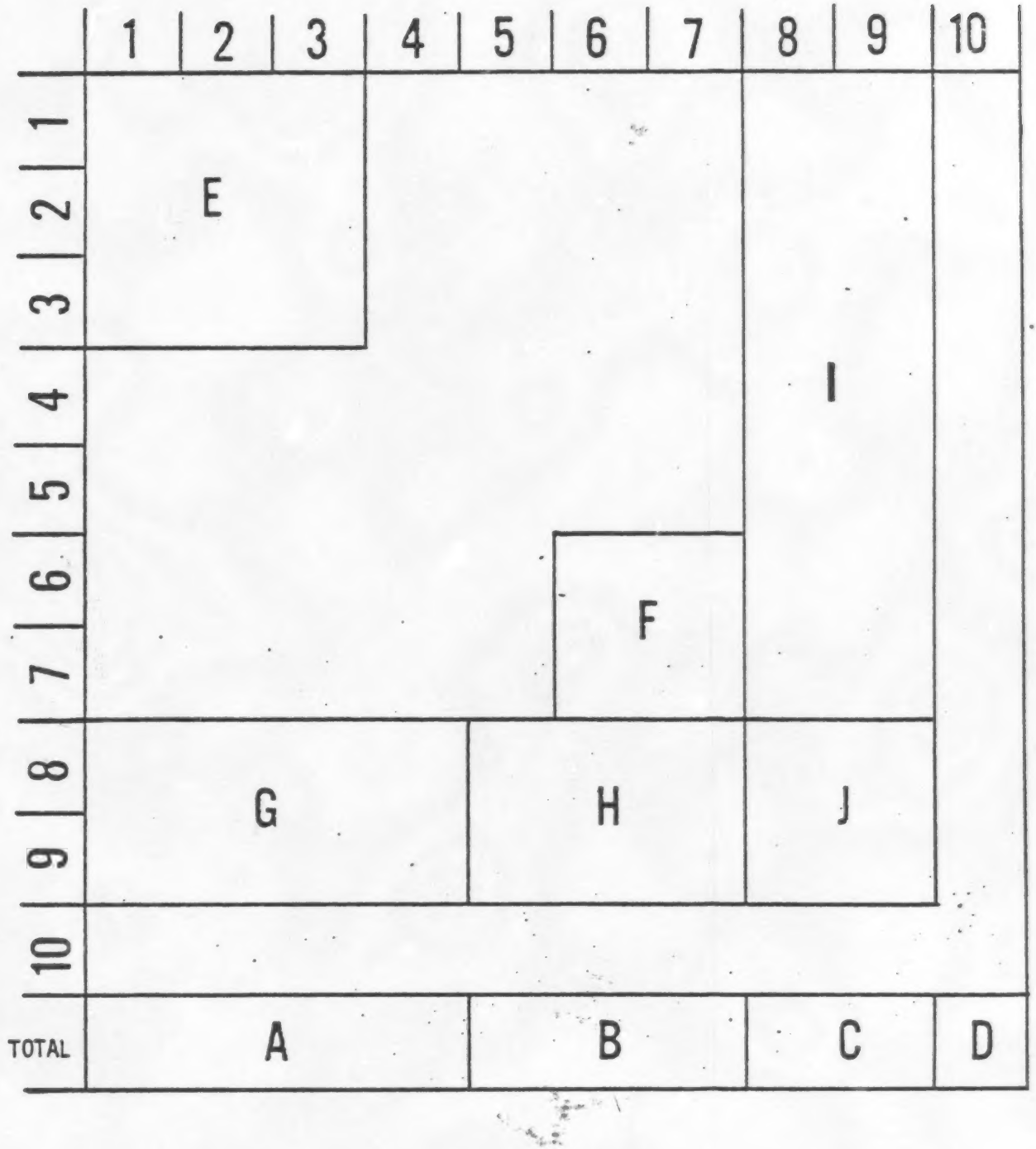

Figure 1. Areas of Interaction Analysis Matrix